

Application No. 10/014,381
Amendment Date: 03-24-04
Reply to Office Action of November 25, 2003

REMARKS

This Amendment is responsive to the Office Action mailed November 25, 2003.

Appended hereto is a request for a one month extension of time and the accompanying fee. The USPTO is authorized to charge deposit account no. 23 0785 for any additional fees necessitated by this amendment.

The examiner is advised that the applicants residences are as follows:

Bob Davis, 13905 E. 253rd Street, Peculiar, MO 64078

John Kelly, 7602 Kessler, Overland Park, KS 66204

Frank Weis, 438 N. Van Brundt, Kansas City, MO 64123

Independent claims 1 and 11 have been cancelled and replaced respectively with independent claims 21 and 23 to better define applicants' invention. Claim 10 has been amended to correct the error noted by the examiner. Claims 16 and 18 now depend from independent claim 23 and have proper antecedent basis.

Applicants acknowledge with appreciation the indication that claims 6 and 16 are directed to patentable subject matter.

Claims 1-5, 7-15 and 17-20 are rejected as being either anticipated under 35 USC § 102 or obvious under 35 USC § 103 over Weis US Patent No. 4,767,532, which patent has a common inventor and is assigned to the same assignee as the present invention. This patent is referenced and discussed on pages 1 and 2 of the specification. The present invention is specifically directed to improve upon the apparatus of the '532 patent.

More specifically, the present invention is directed to providing improvements in an apparatus for removing solid particles from a liquid wherein communication between the liquid flow in the inlet is such that it does not create turbulence with the circulating flow in the particle extraction area. This is accomplished by the wall 45 which prevents communication between the liquid in the inlet and the liquid circulating in the particle extraction area. Wall 45 also directs the circular flow 56 to be substantially parallel with the inlet flow so that the two flows come together without mixing and the flow 56 is forced upwardly over the entering flow to become

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the circulating flow. None of these features are present in the apparatus of the '523 patent.

Another improvement of the present invention over the prior art is that wall 60 separates the effluent liquid from the flow 58 circulating in the particle extraction area so that the circulating flow does not short circuit and go out the outlet flume. The effluent is sheared off the rotating liquid 58 by the bottom of the flume 64, wall 62 and wall of the shell with little disturbance in the circulating flow 58.

In contrast, the apparatus of the '532 patent does not disclose or teach the inclusion of walls that function in the manner of walls 45 and 60. In rejecting the claims as originally filed, the examiner has deemed that "Weiss '532 teaches a baffle (45) in the round shell (22) extended from the inlet flume (41) to form an inherent tunnel extending into the particle extraction area (13)." This is not accurate. The stated purpose of the baffle 45 of the '532 patent is to direct the influent stream towards the peripheral wall 22 and prevent the flow from spreading across floor 13 (see column 4, lines 26-29). This in no way infers that this baffle serves as a wall preventing communication of liquid in the inlet flume and the liquid in the particle extraction area. This feature is clearly recited in new independent claim 21.

Independent claim 23 defines the vertical inner wall (60) associated with the outlet flume. This wall is clearly not present in the '532 patent.

In view of the above, it is respectfully submitted that the application is now in condition for allowance.

Respectfully submitted,

By 
Joel E. Siegel, Reg. No. 25,440

CERTIFICATE OF MAILING

I hereby certify that this Amendment and any other documents referred to as enclosed herein, are being deposited in an envelope with the United States Postal Service "Via US First Class Mail to Addressee" on 03-24-04 and addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.